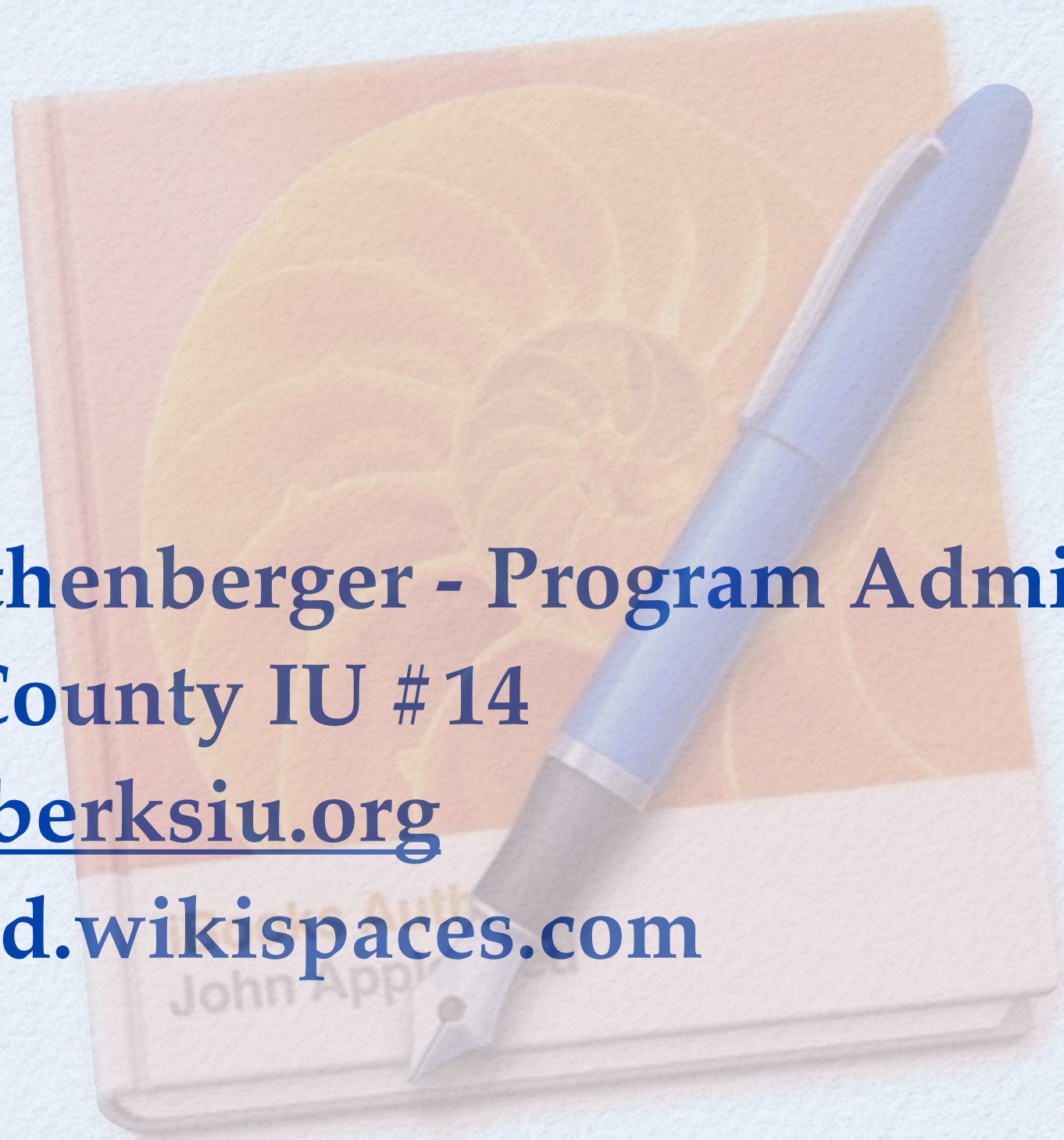


# TEXTBOOK CREATION

- **Jeff Rothenberger - Program Administrator**  
**Berks County IU #14**  
**[jefrot@berksiu.org](mailto:jefrot@berksiu.org)**  
**[bciuipad.wikispaces.com](http://bciuipad.wikispaces.com)**





iBook Author Rocks at  
EdCamp 2012

Harrisburg University

Widget  
Interactive  
Engaging  
Current/Relevant

[www.hetemeel.com](http://www.hetemeel.com)



# OBJECTIVES:

- Discuss the different digital formats
- Explore the different means of creating an eBook
  - Pages, iBook Author, and iPad Apps
- Implementation of an eBook project in the classroom



# DIFFERENT FORMATS

- Office Documents



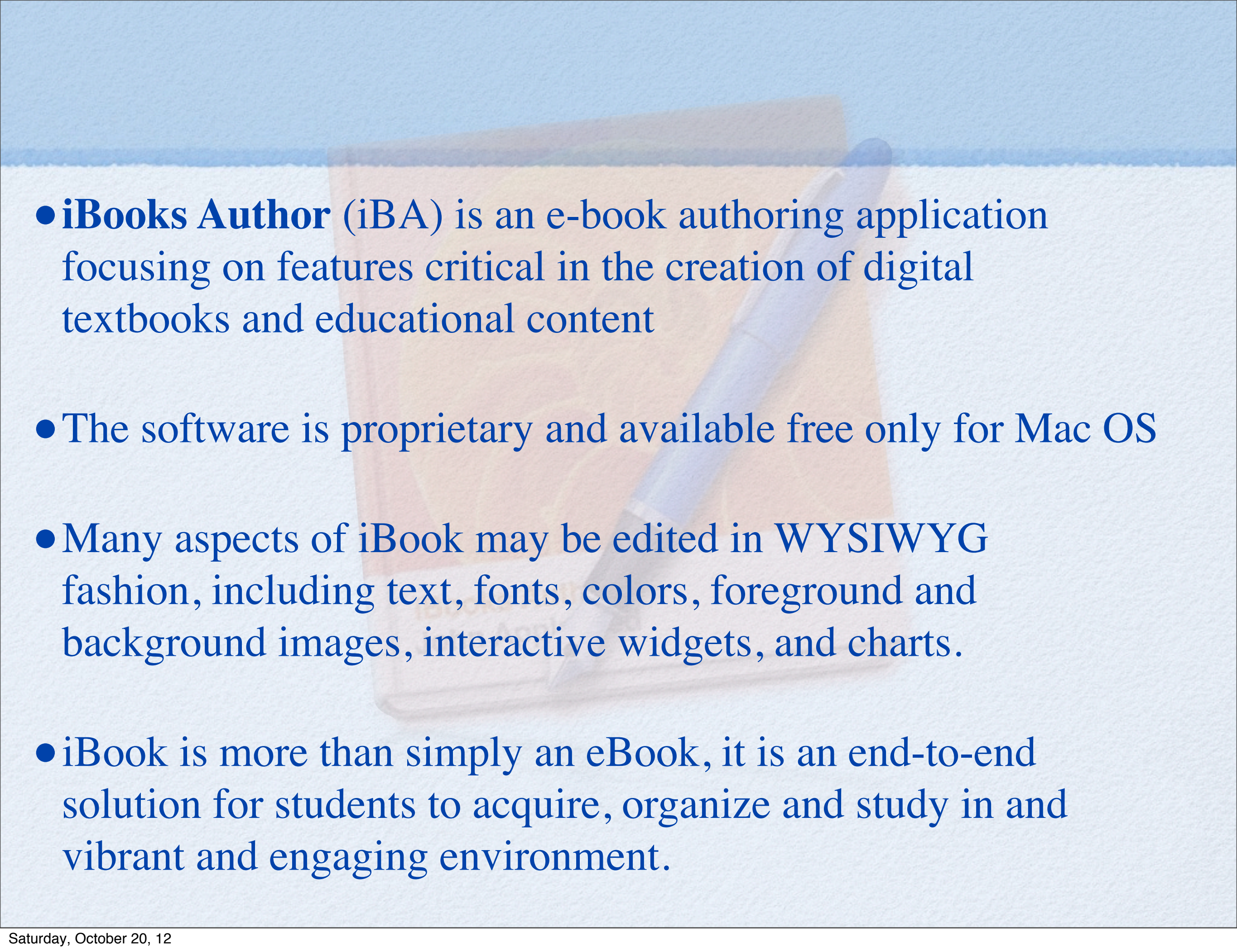
- PDF's



- ePub / eBook





- 
- The background of the slide features a soft-focus image of a stack of books in various colors (brown, orange, blue) with a light blue pen resting diagonally across them. The overall aesthetic is clean and educational.
- **iBooks Author (iBA)** is an e-book authoring application focusing on features critical in the creation of digital textbooks and educational content
  - The software is proprietary and available free only for Mac OS
  - Many aspects of iBook may be edited in WYSIWYG fashion, including text, fonts, colors, foreground and background images, interactive widgets, and charts.
  - iBook is more than simply an eBook, it is an end-to-end solution for students to acquire, organize and study in and vibrant and engaging environment.



# WHY AN IPAD



- Accessibility:
  - Design - IPS technology
  - Multi-touch - Multi Sensory
  - Zoom (up to 500 X)
  - Speech recognition and Voice over
  - White to black
  - Bilingual
  - Stereo to mono
  - Guided access



# WHY AN IPAD

- Understanding by Design
- Differentiated Learning
- 35,000 individual apps to meet individual learning needs.
- Interactive and Engaging
- Largest user group for resources and materials
- Multiple Management Solutions
- School-wide Volume Purchasing Program





# WHY AN IPAD



- Built in Features:
  - Two cameras (Still and Digital Movie)
  - 10 hour battery
  - eTextbook reader
  - Find my device - Managment
  - Multimedia - Photo - movie - music



# WHY AN IPAD

- Cheaper options are available
- For about the same price - you get a full-featured device capable of providing everything for using interactive eTextbooks



# WHY AN IPAD

- The “Cool Factor”



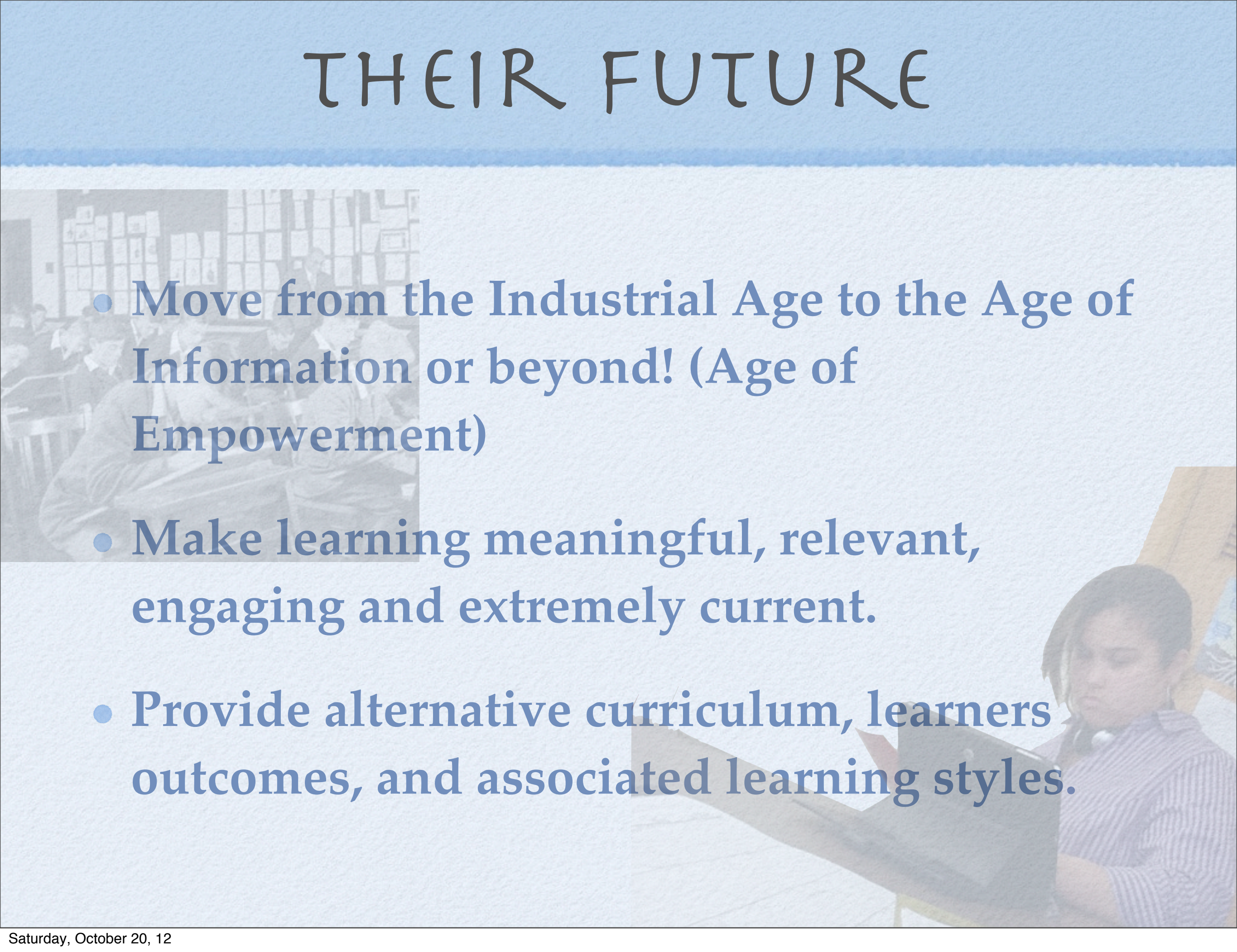


# WHY ETEXTBOOKS?

- Effectiveness: Create learning opportunities
- Student engagement
- Richer, more personalized learning
- Equity
- Content - Common Core or PA Common Core
- Cost - Time! Training! Hardware/Software!



# THEIR FUTURE

- 
- Move from the Industrial Age to the Age of Information or beyond! (Age of Empowerment)
  - Make learning meaningful, relevant, engaging and extremely current.
  - Provide alternative curriculum, learners outcomes, and associated learning styles.

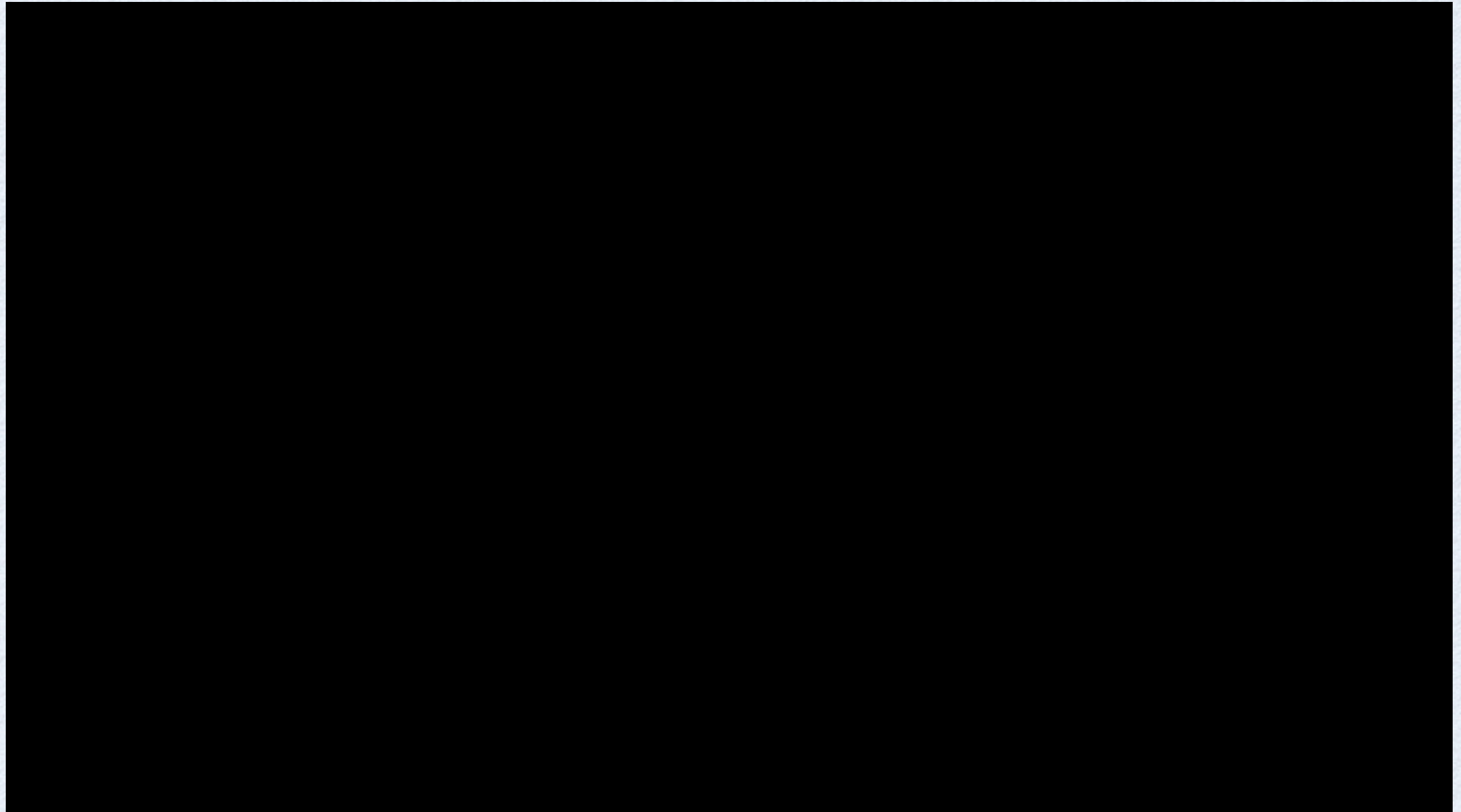


# CONTENT OF BOOKS

- Meet the individual learning needs of students.
- Accommodate individual learning styles of students.
- Teach concepts or skills using content of interest to students.

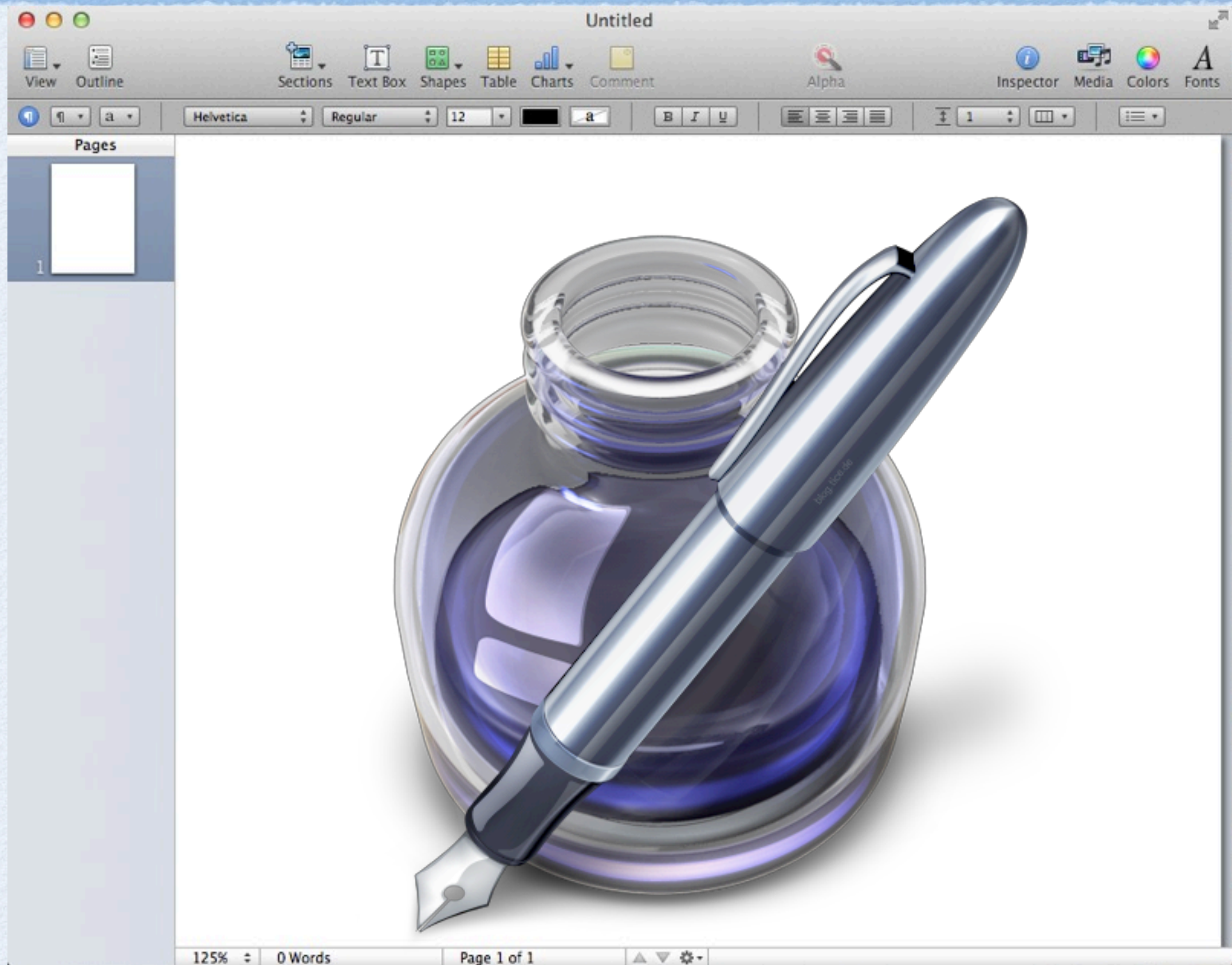


ARE YOU READY TO  
CHANGE THE WORLD?





# PAGES - VERSION 09





# IBOOK AUTHOR

iBook Author. The app that rewrote the book.

iBook Author lets teachers easily create incredible iBook textbooks for iPad.

**\*\* Free \*\*** - Only works on a Newer Mac!

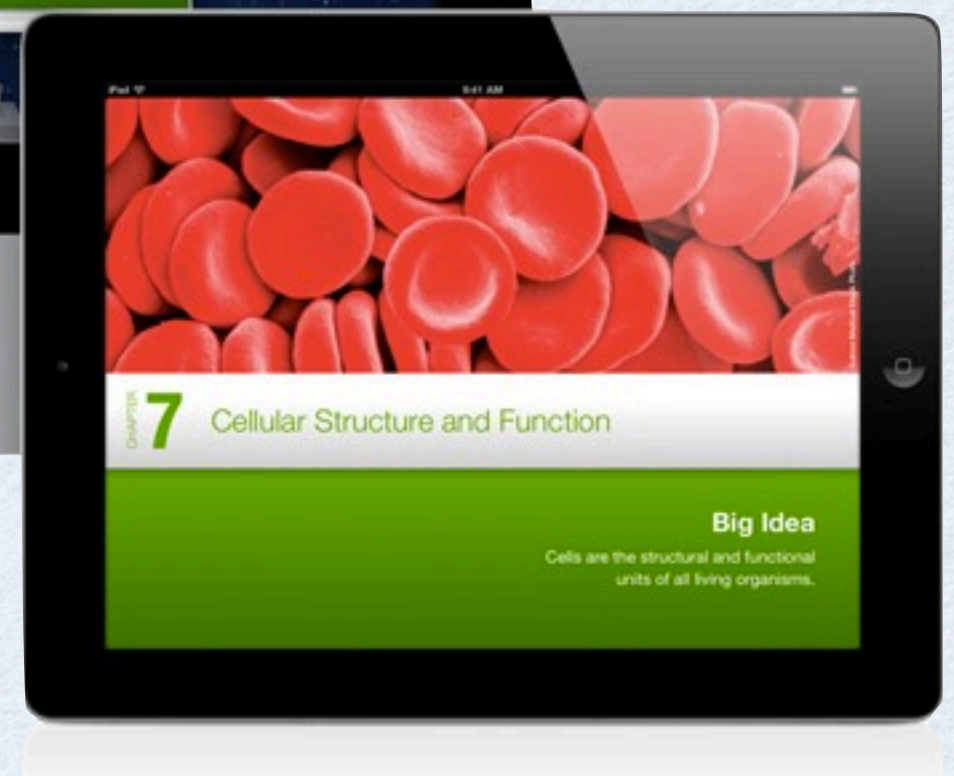




# I BOOK AUTHOR

- Lion - 10.7 OS (Operating System) or newer!
- Let's make sure everyone has iBook Author installed.
- iWork 09
- Video - M4v format (iPhone)
- Overview of the application

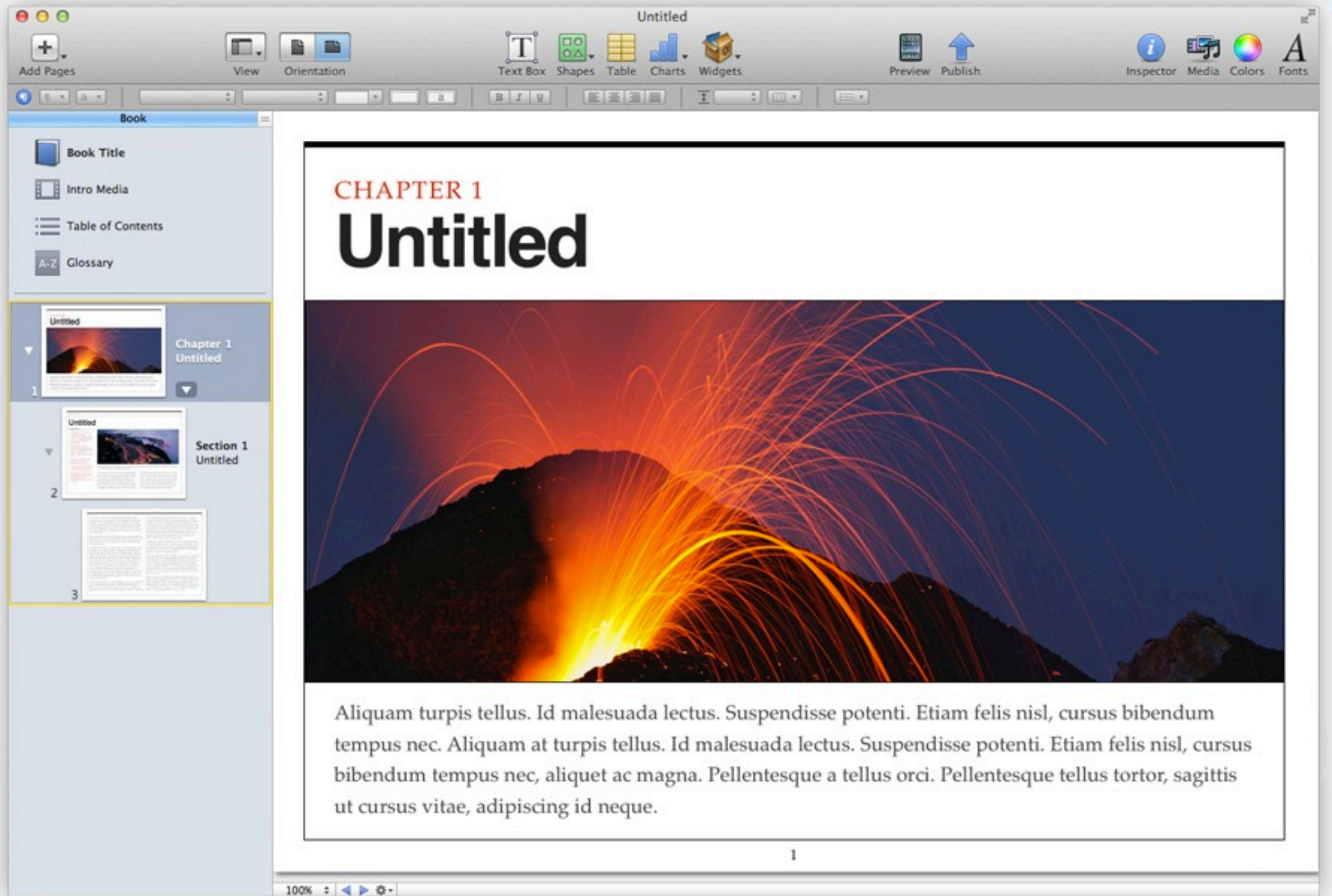




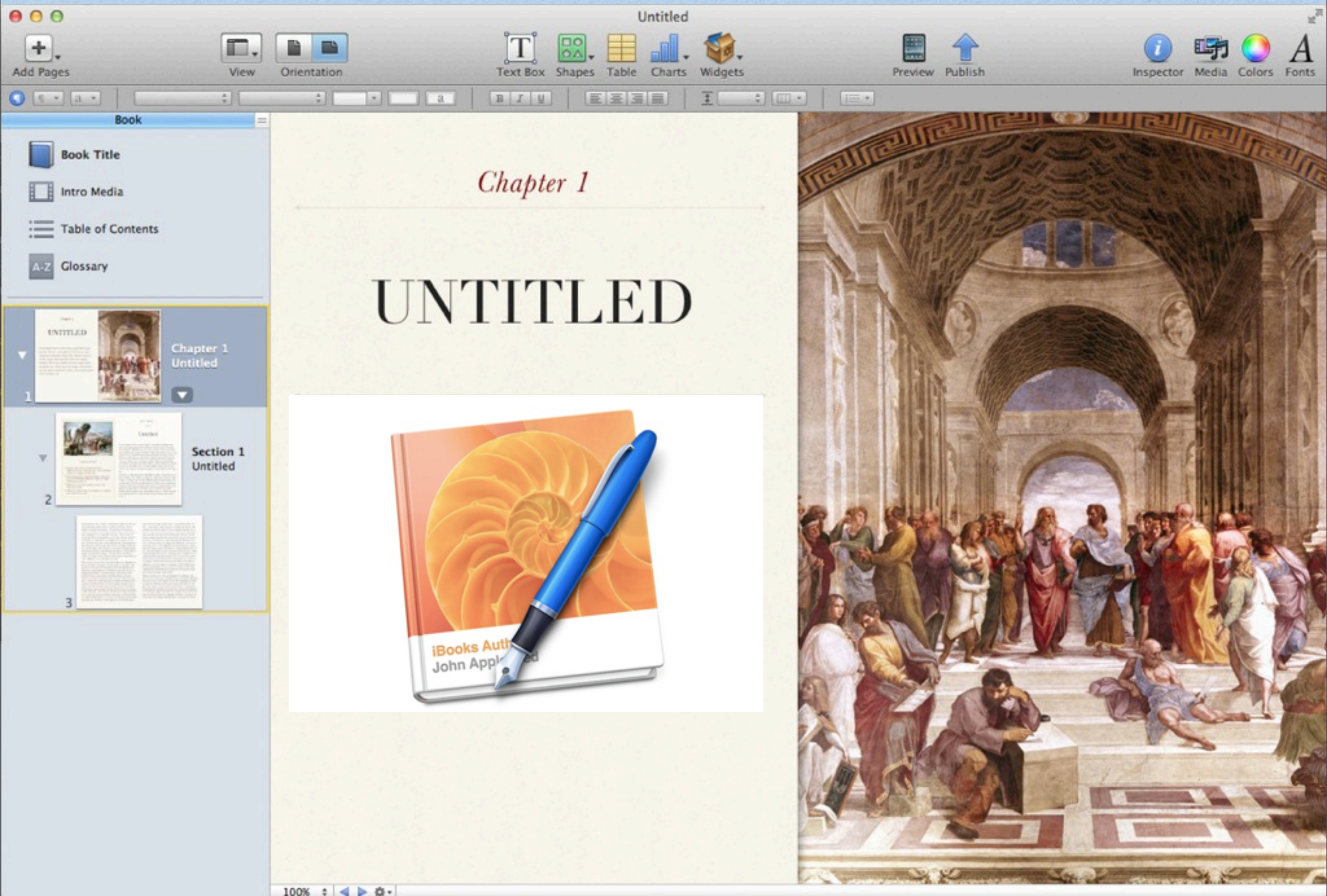
Click on iMac



# TEMPLATES - PICK ONE!

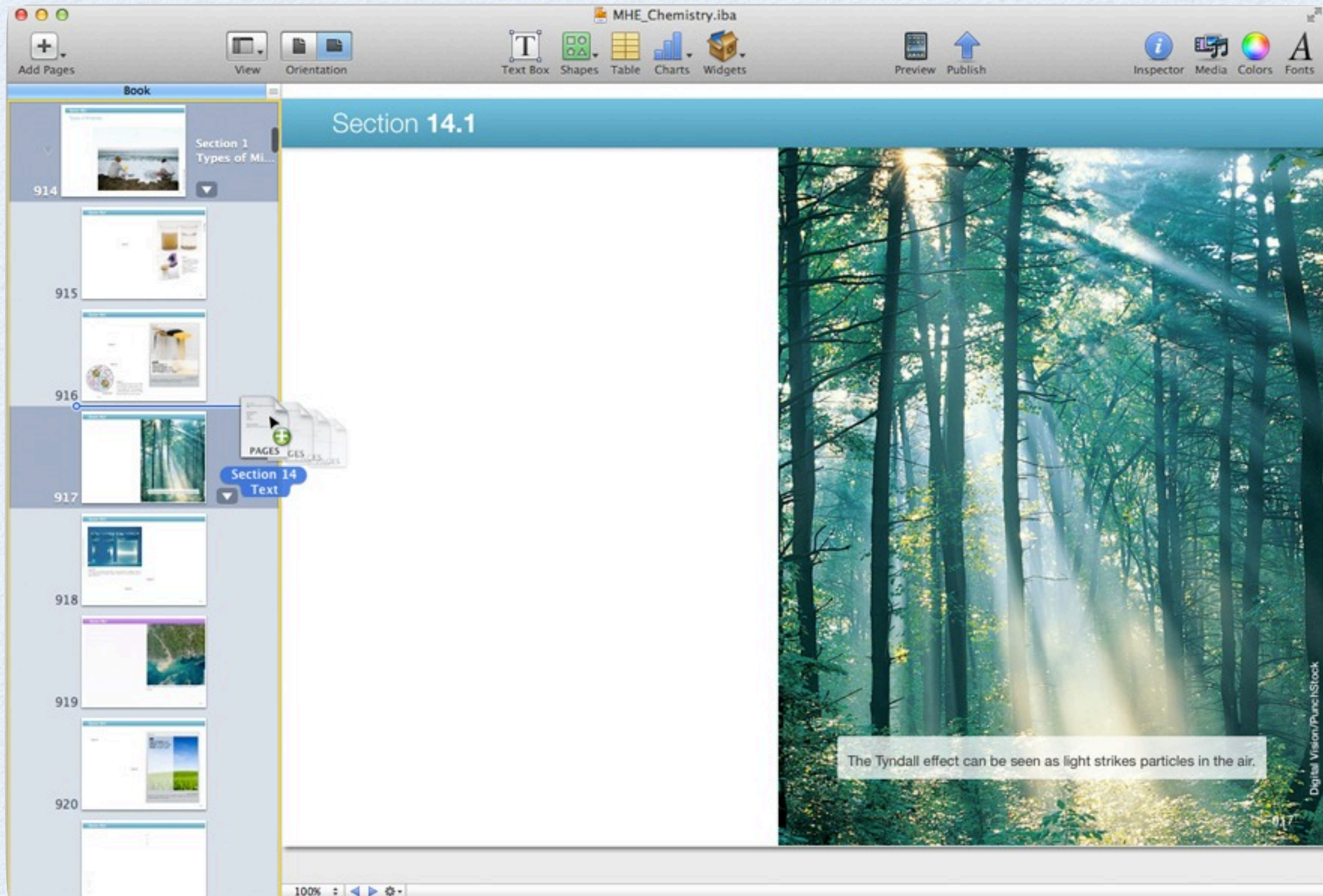








# DRAW AND DROP





# EDITING - COPYING - CK-12

- Cut and Paste - Oh, the joys!
  - Can go into Pages or iBook Author --
  - Will not bring in all special characters, images, interactive content, or video.
- It WILL bring in all text -- Better than typing everything!



# CUSTOMIZE

MHE\_Chemistry.iba — Edited

Inspector Media Colors Fonts

Section 4.1

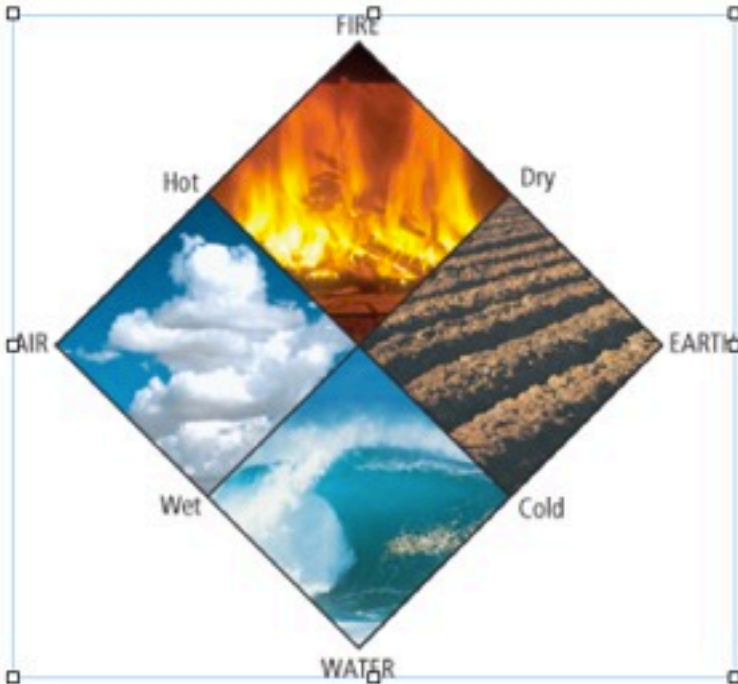
## The Roots of Atomic Theory

Science as we know it today did not exist 2,500 years ago. No one knew what atoms were, and there were few tools for scientific exploration. In this setting, the power of the mind and intellectual thought were considered the primary avenues to the truth. Curiosity sparked the interest of scholarly thinkers known as philosophers who considered the many mysteries of life. As they speculated about the nature of matter, many of the philosophers formulated explanations based on their own life experiences.

Many of them concluded that matter was composed of things such as earth, water, air, and fire, as shown in **Figure 1**. It was also commonly accepted that matter could be endlessly divided into smaller and smaller pieces. While these early ideas were creative, there was no method available to test their validity.

**Democritus** The Greek philosopher Democritus (460–370 B.C.) was the first person to propose the idea that matter was not infinitely divisible. He believed matter was made up of tiny individual particles called *atomos*, from which the

**Figure 1**

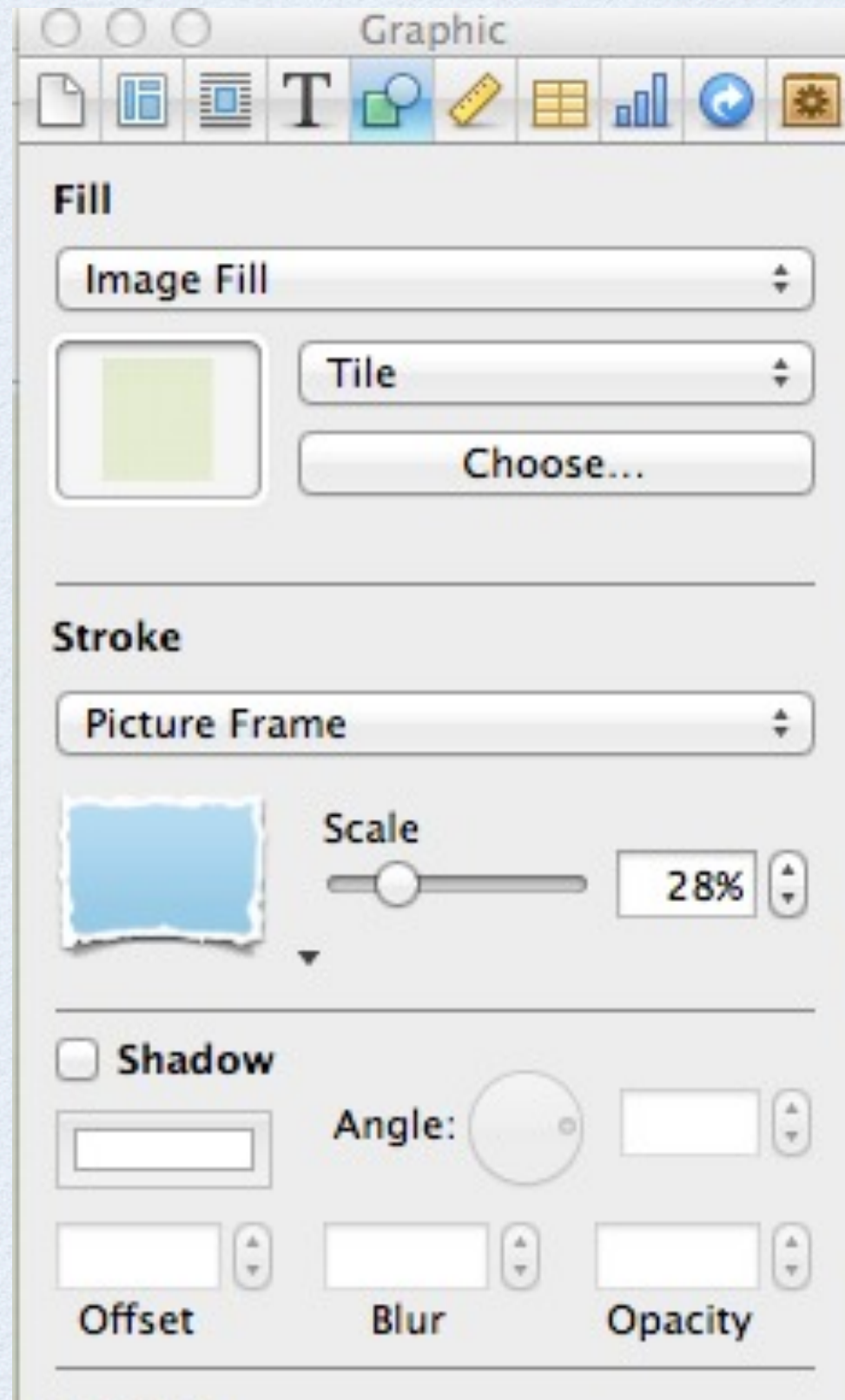


Many Greek philosophers thought that matter was composed of four elements: earth, air, water, and fire. They also associated properties with each element. The pairing of opposite properties, such as hot and cold, and wet and dry, mirrored the symmetry they observed in nature. These early ideas were non-scientific.

202



# INSPECTOR OPTIONS





# ADD WIDGETS

MHE\_Biology.iba

Inspector Media Colors Fonts

Section 7.2

Figure 9

The diagram illustrates a cross-section of a cell membrane. It features a phospholipid bilayer with blue spherical heads and yellow tails. An orange transport protein is embedded in the bilayer. A green Y-shaped carbohydrate chain is attached to the outer surface. Small yellow cholesterol molecules are interspersed within the tails. Labels with leader lines identify the 'Carbohydrate chain', 'Transport protein', 'Cholesterol', 'Nonpolar tail', 'Phospholipid bilayer', and 'Membrane protein'. The top is labeled 'Outside' and the bottom 'Inside the cell'.

Carbohydrate chain

Transport protein

Cholesterol

Nonpolar tail

Phospholipid bilayer

Membrane protein

Outside

Inside the cell

The phospholipid bilayer looks like a sandwich, with the polar heads facing the outside and the nonpolar tails facing the inside.

**Infer** how hydrophobic substances cross a plasma membrane.

378


100%





# HTML - MODULES


iPad 9:41 AM



**Movie** Chemical Language of Pheromones

*Ants communicate using combinations of ten to twenty chemical signals.*

In July and August of 2010 the team filmed in Gorongosa National Park in the southern African nation of Mozambique, bringing home feature material for four chapters in ecology. While shooting in the rain forest atop Gorongosa Mountain, we spent a little time collecting. The carpenter ant to the left, collected on our trip, is a species of the genus *Camponotus* that was previously unknown to science.






Our goal is to have students see the living world the way a naturalist sees it.


To “see,” for example, the chemical environment of organisms, such as the plumes of **pheromone** and territory-marking molecules that organisms use to communicate. Ants have been the study of a lifetime for Edward O. Wilson. We’ll bring some special lessons to students from the world of ants.

**Interactive** Insect Body Plan

### The Insect Body Plan

Move your finger over different regions of the diagram below to explore the insect body plan





The word insect is derived from the Greek meaning “cut into sections.” The evolutionary success of insects and their distinctive physiology can be measured by this: as much as 90 percent of all animal species are insects.

11

00:10 -00:00



# KEYSTONE PRESENTATIONS



9:41 AM

mammals that browse on low leaves, which results in predictable changes in the growth rate and distribution of leafy plants within the restricted area. Thus do biological features produce distinct landscapes.

There are three types of boundaries between landscapes: stationary, shifting, and directional. Stationary boundaries are fixed in place. The edge in such a system may be as sharply defined as a cliff or shoreline, or it may be enforced by a less visible but equally strict ecological barrier such as an abrupt transition of soil type based on a seasonal flood line.

Shifting landscape boundaries move back and forth with no net change in location over time. This movement happens in response to changing conditions such as the fluctuation of annual rainfall, or heavy seasonal grazing by migratory animals.

Directional boundary changes imply dynamic interactions at the interface between landscapes, which can reveal underlying ecological forces. In the next section, ecologist Marc Stalmans, science director of Gorongosa National Park, will explain several ecological mechanisms in action at landscape boundaries within the park. Conflicting forces there promote both stationary and directional boundaries, with the outcome being resolved in real time.

**Gorongosa Landscapes**  
Select a landscape on the left - its location will be highlighted in the map of Gorongosa National Park and its surrounding buffer zone.

Montane Forest

**Interactive Mapping Landscapes**

*In the 1970s, the complex ecology of Gorongosa was carefully described and mapped in a renowned dissertation by ecologist Ken Tinley. That work continues to be a central scientific document for understanding the preserve. In 2008 the science director of Gorongosa National Park, Marc Stalmans, revisited the same landscape, developing a detailed atlas of the plant and animal life present and mapping the shifting features of the biological landscape. Dr. Stalmans' work informs our ecological tour of Gorongosa in the next section.*

36

00:00 -00:12



# INTERACTIVE IMAGES

iPad

9:41 AM

Section 22.2

The internal structure of most leaves is well-adapted for photosynthesis. **Figure 22** shows tightly packed cells directly below a leaf's upper epidermis. This location has the maximum exposure to light, and therefore, most photosynthesis takes place in these column-shaped cells.

Figure 22

A detailed cross-section diagram of a leaf. At the top is the thin Cuticle layer, followed by a single layer of Epidermal cells. Below the epidermis is the Palisade mesophyll, consisting of two layers of columnar cells. The lower part of the leaf contains the Spongy mesophyll, which has large, irregular cells with many air spaces. A Vascular bundle is shown in the center, containing xylem and phloem. The bottom of the leaf features a Stoma, formed by two Guard cells, which allows for gas exchange.

The different tissues of leaves illustrate the relationship between structure and function.

They contain many chloroplasts and make up the tissue called the **palisade mesophyll** (mehz uh fihl), or palisade layer. Below the palisade mesophyll is the **spongy mesophyll**, consisting of irregularly-shaped, loosely packed cells with spaces surrounding them. Oxygen, carbon dioxide, and water vapor move through the spaces in the spongy mesophyll. Cells of the spongy mesophyll also contain chloroplasts, but have fewer per cell than in the palisade mesophyll.

Vocabulary | Word origin

Mesophyll

*meso-* comes from the Greek word *mesos*, meaning *middle*  
*-phyll* comes from the Greek word *phyllon*, meaning *leaf*

Mark Bolton/Garden Picture Library/Getty Images

1310

00:01

-00:17



# INTERACTIVE GALLERIES


iPad 9:41 AM

## Freshwater Biome

Only 3 percent of the Earth's water is freshwater, and about 70 percent of that is sequestered in polar ice. Freshwater biomes include rivers and streams (running water ecosystems), lakes and ponds, and wetlands. The study of inland water ecosystems is called limnology.

**Rivers and streams** take on different features along their lengths. At the headwaters of a river, the current is usually swift and the water relatively clear. As water moves downstream, rivers pick up salt, nutrients, detritus of all kinds, and silt.

**Lakes and ponds** are relatively stable, complex biological environments that form when water accumulates in depressions in the landscape. The chemical state of standing water bodies is of special interest because the waters are relatively confined, and concentrations of pollutants and other materials can build up, dramatically



**Gallery** Freshwater Biome: Lakes, Rivers and Wetlands Gallery

*Crater Lake, in Oregon, fills the bowl of a collapsed volcano. Unusually for a lake, it has no inlets or outlets. It is refreshed by rain and snow and its only outflow is evaporation and subsurface seepage.*

• • • •

changing the quality of the water. Oxygen concentration is especially important. Nutrient-poor lakes are often rich in oxygen, because there is not enough food to support oxygen-consuming plants and animals and in their turn, the decomposers that metabolize the remains of lake life. Where nutrients are overabundant, plant life may reproduce explosively, especially algae. This can result in **eutrophication**, the depletion of dissolved oxygen in the zones below

34

00:00

-00:10



# MEDIA - MOVIES


iPad 9:41 AM

Ecology is the scientific study of the relations between organisms and their environment. Ecological systems such as forests and shorelines are like complicated machines. Ecologists study the components of these systems to understand how the pieces fit together and how the systems function as a whole.

One goal of ecology is to find rules that govern each system. Why is a particular plain covered with grass instead of forest? Why are big, fierce animals so rare, when being a predator that fears no enemy would seem to be a high evolutionary achievement? (We'll answer this question in chapter 39.) Ecologists spend their careers tackling such questions. In this chapter, we will review what ecologists have learned and get a sense of what they take into consideration when they explore an ecological system.

The workings of every ecosystem are influenced by both biotic and abiotic factors. **Biotic factors** have a biological origin—they arise from the activities of organisms. These activities must be considered in the context of **abiotic factors**—nonliving aspects of the ecosystem such as the climate, the quality of the surrounding terrain, and the availability of the nutrients needed to support the inhabitants of the ecosystem.

Biotic and abiotic factors together define **habitats**, the places where organisms live. A forest ecosystem includes many habitats: the soil, the canopy, a stream, and an anthill are distinct habitats. Populations of different organisms that share a habitat interact with one another to form a **community**. An example might be an impala herd, the other grazing mammals nearby, the enteric bacteria in their guts, the grasses they are



**Movie** What is an ecosystem?

feeding upon, and the microscopic animal, fungal, and microbial life in the soil below the grass. Taken as a whole, organisms and their habitats, including all abiotic factors that affect the system, such as the weather and terrain, comprise an **ecosystem**.

All of the ecosystems of the Earth taken together are called the biosphere. Ecological science explores all of these levels of life—organisms, communities, ecosystems, and the biosphere—and relates each to the others.

21



# CHAPTER REVIEWS

iPad 9:41 AM

SECTION 4

Review

Summary

Ecology is the scientific study of the relations between organisms and their environments. One goal of ecology is to discover the rules that explain the patterns we see in the natural world. Fundamental to these investigations is assessing the influence of biotic and abiotic factors.

Populations of organisms that share a habitat and interact with one another form a community. On a larger scale, the interactions and interdependencies that connect organisms and their environments comprise an ecosystem.

Biomes are communities on a very large scale, identified by their characteristic climate and prevailing vegetation. At the highest level, terrestrial biomes include forest, grassland, desert, and tundra, and aquatic biomes are divided between freshwater and marine. There are numerous finer distinctions, based on patterns found in specific climates and regions of the world.

Review 1

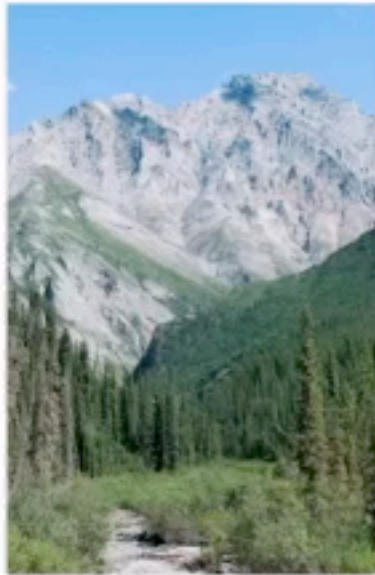
Question 3 of 5

The following is an example of a \_\_\_\_\_ which is the largest terrestrial biome.

A. Tropical forest

B. Temperate forest

C. Taiga



Clear Answer

43

00:00

-00:16



# ASSESSMENT

The screenshot displays the EOW\_Composite\_v28.iba software interface. The top toolbar includes icons for adding pages, viewing, orientation, text boxes, shapes, tables, charts, widgets, preview, and publish. The left sidebar shows a book structure with sections 1 through 5, including a 'Credits' section at the bottom. The main content area displays 'SECTION 4 Review'. The 'Summary' section describes ecology as the scientific study of organisms and their environment, and discusses biomes and ecosystems. The 'Widget' panel on the right shows a list of questions with their respective answer counts. A 'Review 1' section displays a question: 'Which one of the following is a savanna?'. Below the question are four images: a snow-capped mountain, a savanna landscape with a tree, a desert landscape, and a desert landscape with a rock formation. The second image is marked with a green checkmark, indicating it is the correct answer. A 'Check Answer' button is visible at the bottom right of the widget panel.

**SECTION 4**

## Review

**Summary**

Ecology is the scientific study of organisms and their environment. The goal of ecology is to discover the rules that govern the interactions we see in the natural world. One of the main investigations in ecology is assessing the interactions between organisms and abiotic factors.

Populations of organisms that interact with one another form communities. On a larger scale, the interactions between communities that connect organisms and their environment form an ecosystem.

Biomes are communities of organisms defined by their characteristic climate and vegetation. At the highest level, biomes include forest, grassland, desert, and aquatic biomes. Aquatic biomes are divided into marine and freshwater biomes. There are numerous finer distinctions, based on patterns found in specific climates and regions of the world.

**Widget**

Layout Interaction

☐ Full-screen only

Questions	# of Answers
1 - Which one of the following is a savanna?	4
2 - Identify the following biome:	4
3 - The following is an example of [blank] which is the largest terrestrial biome.	3
4 - Which factors shape a biome?	4
5 - Match the biomes on this map of the Americas:	4

Accessibility Description

Question

Which one of the following is a savanna?

Enter text for VoiceOver to read aloud for people with visual impairments.

**Review 1**

**Question 1 of 5**

Which one of the following is a savanna?

Four images are shown: a snow-capped mountain, a savanna landscape with a tree, a desert landscape, and a desert landscape with a rock formation. The second image is marked with a green checkmark.

**Check Answer**



# SUPPORT

<http://www.apple.com/support/ibooksauthor/>

## iBooks Author Support



Welcome



Get Started



Media



Publishing



Tips



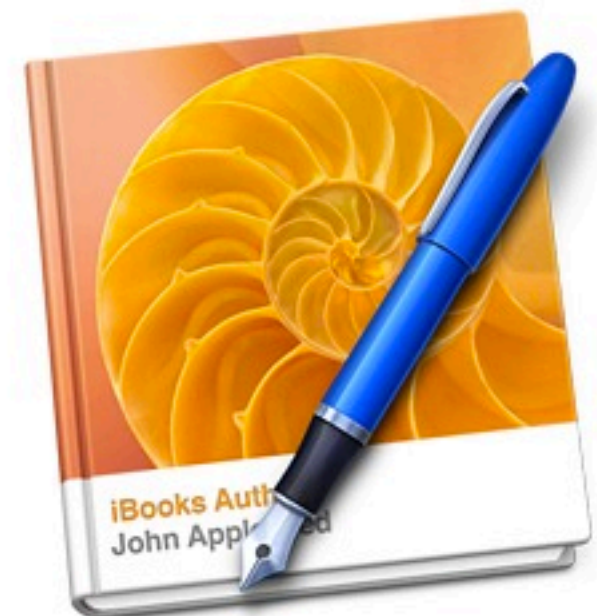
Contact Support



### Welcome to iBooks Author Support

Choose a topic from the left to find answers to your questions about iBooks Author.

Get Started





# TRANSFER TO IPAD

- Dropbox / Skydrive - if not too large a file
- Use the “Preview” button in iBook Author
- Copy to Apps in iTunes and Sync
- Use Calibre



# WIDGETS

- Class Widgets
- Design 3D CV and Foto CX from Strata
- Cheetah 3D
- Google SketchUp



# CONTENT

- CK-12: <http://ck12.org> - Create Account
- \*\* Email CK-12 for teacher answer sheets



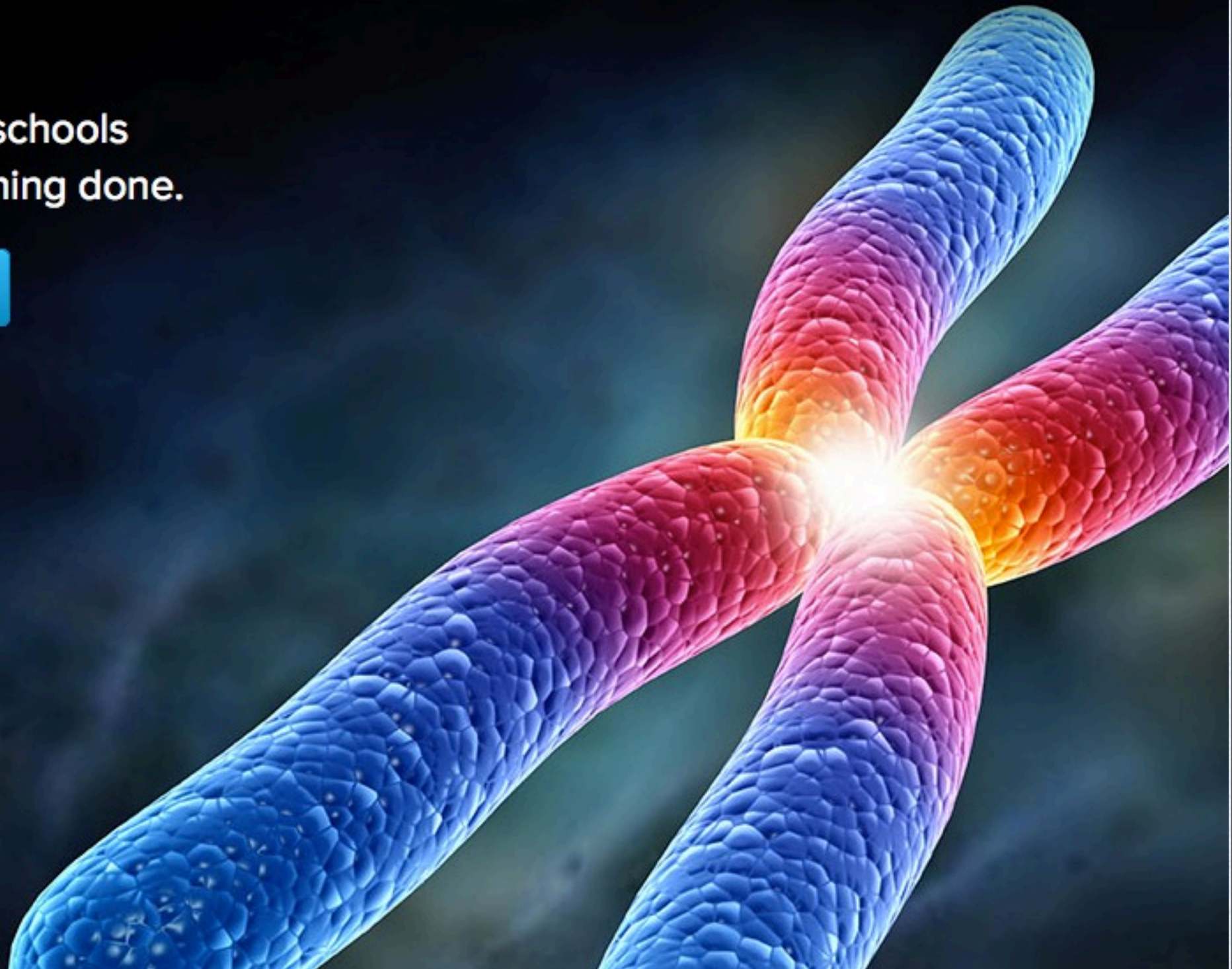
# CK-12.ORG



Free easy to use tools for  
you, your teachers and your schools  
so that you can get your learning done.

[I'm a Student](#)

[I'm a Teacher](#)





# CREATING EBOOK APPS

- iTunes U - requires a school/teacher account be created
- inkling
- HMH Fuse
- CourseSmart
- Lulu Publishing



EPUB





# EPUB

<http://dotepub.com>



Please, read the  
[release notes](#)

Convert any webpage into an e-book

**dotEPUB** is *software in the cloud* that allows you to **convert any webpage into an e-book**.

For **content consumers** (readers), we have developed a **bookmarklet** for modern browsers (desktop or mobile). And, if you are a Chrome or Firefox user, you can install the dotEPUB **extension** in your browser.

For **content producers** (editors, authors), we offer **Creator** and a **widget**. Creator lets you make an e-book from a text of your own. The widget helps your users getting the content of your website in e-book form (see the tips for

[English](#) | [Español](#) | [Català](#)

*A push-button cloud-based e-book maker*

## From the FAQ page

Will it work on a mobile device like the iPad?  
**Yes!**

Will it create e-books for Amazon Kindle?  
**Yes!** ([Watch the videos!](#))

Answers in: [Frequently Asked Questions](#)

## Bookmarklet

### Installation

Check or uncheck the following settings:

Format: ☒ EPUB ☐ MOBI (Kindle)

☒ Immersive mode

*In the immersive mode, links will be removed, you will not be offered the possibility of keeping images and there will be no indication where removed*



# MAC AUTOMATOR



- Open Automator - Click on Application
- Library - TEXT - Text to EPUB file

**Text to EPUB File**

Title:

Author:

Save As:

Where:

Cover Image:

Place Media:

☐ Scale images

Name

0 item(s)

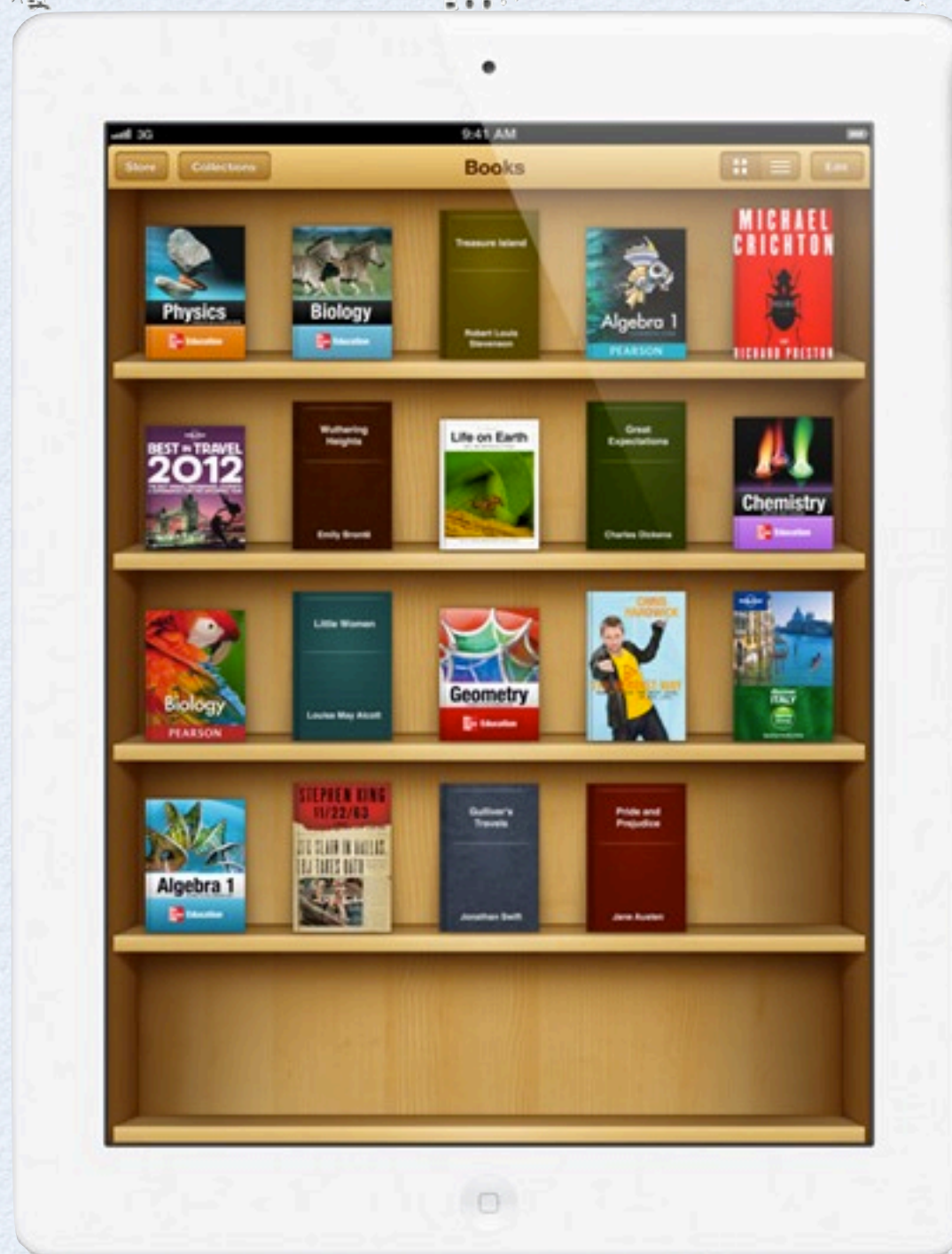
**Results** **Options** **Description**

☐ Ignore this action's input

☒ Show this action when the workflow runs ☐ Show only the selected items



# BOOK APPS





# CREATING EPUB APPS

The following are iPad Apps that allow you to create ePub books.

- Book Creator



- eBook Magic





# OTHER OPTIONS



Sigil

- Sigil (WYSIWYG eBook editor) - Free
- Adobe InDesign CS5 - \$348.00(Education)





# CALIBRE

The screenshot shows the Calibre application window. At the top is a toolbar with icons for adding books, editing metadata, converting books, viewing, a bookshelf with 6 books, fetching news, getting books, saving to disk, connecting/sharing, and removing books. Below the toolbar is a search bar with a 'Restrict to' dropdown set to '(all books)', a search input field, and buttons for 'Go!', 'Cancel', and 'Saved Searches'. On the left is a sidebar with a 'Find item in...' dropdown and a 'Find' button. Below this is a list of categories: Authors [5], Languages [1], Series [0], Formats [3], Publishers [5], Rating [0], News [0], Tags [1], and Identifiers [2]. At the bottom of the sidebar are options to 'Sort by name', 'Match any', and 'Manage authors, tags, etc'. The main area displays a table of 6 books. The right sidebar shows a large book cover and details for the selected book: Authors: CK-12 Foundation, Formats: EPUB, RTF, and Path: Click to open. The status bar at the bottom indicates 'calibre version 0.8.49 created by Kovid Goyal', 'Update found: 0.8.55', and 'Jobs: 0'.

calibre - || Calibre ||

Add books Edit metadata Convert books View 6 books Fetch news Get books Save to disk Connect/share Remove books

Restrict to (all books) Search (For Advanced Search click the button to the left) Go! Saved Searches

Find item in t... Find

- Authors [5]
- Languages [1]
- Series [0]
- Formats [3]
- Publishers [5]
- Rating [0]
- News [0]
- Tags [1]
- Identifiers [2]

Sort by name Match any Manage authors, tags, etc

	Title	Author(s)	Date	Size (MB)	Rating	Tags	Series	Path
1	Area and Perimeter of ...	CK-12 Foun...	28 Apr 2012	0.2				CK-
2	iupropjune12	Jeff Rothenb...	17 Apr 2012	0.1				Jeff
3	Sample from The Man ...	G. K. Cheste...	05 Mar 20...	<0.1				dote
4	20 Ways to use ePub	Jeff Rothenb...	11 Feb 2012	<0.1				
5	BOL Student Handbook	BOL Staff	11 Feb 2012	1.1		Onlin...		Berl
6	Calibre Quick Start Guide	John Sember	10 Feb 2012	0.1				cali

Authors: CK-12 Foundation  
Formats: EPUB, RTF  
Path: Click to open

calibre version 0.8.49 created by Kovid Goyal Update found: 0.8.55 Jobs: 0



# READING ONLINE BOOKS

- iBook
- Free Books
- Kindle - .azw - mobi
- Other tablet formats: Wikipedia.
- <http://goo.gl/r7tBM>



# CREATION

- Time to work and create
- Ask Questions



